

## Texas Brine Company, LLC 1301 Highway 70 Rella Base LA 70241

Belle Rose, LA 70341

Phone: 985-369-6657 Fax: 985-369-7873



March 13, 2013

Commissioner James H. Welsh P.O. Box 94275 Baton Rouge, LA 70804

## **RE:** In response to State of Louisiana Department of Natural Resources Office of Conservation's Second Amendment to Declaration of Emergency and Directive

Commissioner Welsh,

In response to the Second Amendment and Declaration of Emergency and Directive order issued by the Louisiana Department of Natural Resources (LDNR), Office of Conservation on September 25, 2012, Texas Brine Company, LLC (TPC) understands the seven items listed in the document.

In the above mentioned, TBC was specifically directed and ordered to perform certain tasks outlined in the above mentioned document. Below are the required responses, as directed.

- 1. TBC's counsel provided LDNR legal counsel with a response to Directives 1-3 on September 28, 2012.
- 2. TBC understands Directive 4, which is to provide all daily logs and field notes from all contractors conducting investigation into subsidence and natural gas bubbling. The Daily Action Summary and results for current information can be found in the Attachment section of this report.
- 3. TBC understands Directive 5, which directs TBC to immediately allow for split or share any sample taken on site related to Well 3A (Serial Number 974265), the cavern, other wells facilities or other site locations. The Daily Action Summary of today's collection can be found in Attachment section of this report.
- 4. TBC understands Directive 6, which directs TBC to immediately report the results (final and preliminary) of any tests, logs samples or data collection performed on Well 3A, the cavern, other wells, facilities or site locations that indicate a change in any previously known conditions related to the investigation of the subsidence or natural gas bubbling

- events, and continue to report any such results. The Daily Action Summary and the Results related to this Directive can be found in Attachment section of this report.
- 5. TBC understands the Directive 7, which states that TBC will provide a daily summary of all tests, or logs performed or samples taken from Well 3A and the cavern as well as any results of those tests or logs, including preliminary as of September 25, 2012 and going forward. The Daily Summary and Results related to this Directive can be found in Attachment section of this report.

Please note that the drilling rig used for the Observation Well 3A has been removed and the site is being rigged down and returned to pre-drilling condition. As such, daily drilling reports for this well have ceased. Plans are being made for longer term potential gas venting/flaring requirements and possible hydrocarbon material recover from Well 3A.

In addition, previous daily summary reports issued to LDNR have included significant duplicate information as there is a fair amount of overlap in the information requested in each of the Directives included in the September 25, 2012 order. All requested information associated with the Directives issued in the September 25, 2012 order are included in the Attachment section of this report.

TBC believes that the submittal of this report satisfies the requirements of the Declaration of Emergency and Directive issued on September 25, 2012. As directed this report is submitted by email to <u>conservationorder@la.gov</u>, ref. "Emergency Declaration-Texas Brine Company LLC-9/25/2012.

Bruce E. Martin

Vice President, Operations

Bana EMart

Texas Brine Company, LLC



			TBC Oxy Grand Bayou	Data Management-Envir	ronn	nental								
Contractor	Responsibilities	C	Collected By	Date Collected		Delivered to Lab	<b>Results from Lab</b>	Laboratory	Method	Date to Agencies				
Sage	Stationary Air Monitoring		herjee - 08:00 - 09:30 V (Code Red) - 07:00 -	3/12/2013		NA	NA	NA	AreaRAE Monitors	3/13/2013				
	Residential Air Monitoring	Brett Loup	/Steve Shaughnessy	3/12/2013		NA	NA	NA	Hand-held TVA Unit	3/13/2013				
_	Gas Seep Sampling	No w	ork performed	3/12/2013		NA	NA	NA	NA	NA				
	Well Gas Sampling	No w	ork performed	3/12/2013		NA	NA	NA	NA	NA				
	Indoor Air Monitoring	No w	ork performed	3/12/2013	3/12/2013		NA	NA	NA	NA				
Respec	Inclinometers/Tilt Meters	3/12/2013	No work conducted	No work conducted	NA	NA	NA		NA	NA				
	InSAR Reflector Installations	3/12/2013	No work conducted	No work conducted	NA	NA	NA		NA	NA				
	Subsidence Survey-Fenstermaker	3/12/2013	No work conducted	No work conducted	NA	NA	NA		NA	NA				
-	Shallow Geophone Installation	3/12/2013	No work conducted	No work conducted	NA	NA	NA		NA	NA				
_	Deep Geophone Installation		No work conducted	No work conducted	NA	NA	NA		NA	NA				
	Amendment #3, Directive #2	3/12/2013	No work conducted	No work conducted	NΔ	NA	NA		NA	NA				
Miller	Weekly Stability Survey		/ork Performed	Mar. 12, 2013		NA NA	NA NA	NA	NA NA	NA NA				
-	Misc. Survey Work		/ork Performed	Mar. 12, 2013	<b>-</b>	NA NA	NA NA	NA NA	NA	NA NA				
-	Sinkhole Hydro/Perimeter Survey		Joel Miller	Mar. 12, 2013	<b>-</b>	NA	NA	NA	NA	NA				
Pisani -	Surface Water		PMR	2/25/2013		2/25/2013	3/7/2013	GCAL	SW-846 9056A; SM 4500S H; SM 2540C; SM 2510B	3/13/2013				
									Chloride, Bromide and Sulfate (Inorganic Anions) – SW-846 9056A, Conductivity – SM 2510B, TDS – SM 2540C, Cations/metals – SW-846 6010B, Carbonate & Bicarbonate Alkalinity – SM 2320B, BTEX – SW-846 8260B, TPH Fractions – TX 1006/LA 1006, and Dissolved					
L	Well Water		PMR	2/19/2013		2/22/2013	3/6/2013	GCAL	Gases - RSK-175	3/13/2013				
	Geoprobe Wells		NA	NA		NA	NA	NA	NA	NA				
			Gran	d Bayou Well 3A										
	Daily Operations at 3A					Summary of To								
						Оху	3A							
	3/13/2013	7am 385.31		3/13/2013										
		Relief Well #1												
	3/13/2013					See ORW-01 Fla	re Spreadsheet							

Laboratory

**Lab Contact** 

Laboratory Lab Contact



#### **Daily Action Summary**

#### March 12, 2013

#### **Stationary Air Monitoring**

- Bijeet Mukherjee onsite from 08:00 to 09:30. Changed out the monitors between 08:18 and 09:17. Collected data from the monitoring database and forwarded to Steve Shaughnessy in the Baton Rouge office for processing.
- Pete Hyatt IV of Code Red (monitor sub-contractor) onsite from 07:00 to 17:00. Assisted in battery change outs and maintenance of the monitoring equipment.

#### **Residential Air Monitoring**

• The residential monitoring team members were Steve Shaughnessy, Bijeet Mukherjee, Brett Loup, and Lauren Stout. After calibrating the portable TVA units, the residential walkthrough occurred between 15:48 and 16:49. A post-monitoring drift check was performed after the walkthrough. The collected data was compiled by Steve Shaughnessy and forwarded to Jill Martin in the Baton Rouge office for processing.

#### **Gas Seep Sampling**

• Not Scheduled

#### **Well Gas Sampling**

Not Scheduled

#### **Air Indoor Monitoring**

• Not Scheduled

		3/12/2013
Na	Chunch Addungs	VOC Concentration
No.	Street Address	(ppm)
1	114 Sportsman Paradise Drive	0.74
2	117 Sportsman Paradise Drive	0.77
3	120 Sportsman Paradise Drive	0.74
4	121 Sportsman Paradise Drive	0.80
5	122 Sportsman Paradise Drive	0.74
6	123 Sportsman Paradise Drive	1.00
7	Purple House on Left Sportsman	0.90
	Paradise Drive	0.89
8	126 Sportsman Paradise Drive	0.82
9	132 Sportsman Paradise Drive	0.88
10	133 Sportsman Paradise Drive	0.85
11	134 Sportsman Paradise Drive	0.85
12	135 Sportsman Paradise Drive	0.85
13	137 Sportsman Paradise Drive	0.81
14	138 Sportsman Paradise Drive	0.83
15	139 Sportsman Paradise Drive	0.80
16	140 Sportsman Paradise Drive	0.95
17	142 Sportsman Paradise Drive	0.77
18	143 Sportsman Paradise Drive	0.72
19	144 Sportsman Paradise Drive	0.76
20	145 Sportsman Paradise Drive	0.72
21	149 Sportsman Paradise Drive	0.80
22	153 Sportsman Paradise Drive	0.77
23	1434 Jambalaya Street	0.83
24	1432 Jambalaya Street	0.81
25	1430 Jambalaya Street	0.74
26	102 Bream Street	0.81
27	107 Bream Street	0.82
28	1426 Jambalaya Street	0.84
29	1426 A Jambalaya Street	0.94
30	1428 Jambalaya Street	0.86
31	1428 A Jambalaya Street	0.79
32	1454 Jambalaya Street	0.96
33	1422 Jambalaya Street	0.85
34	1421 Jambalaya Street	0.91
35	1420 Jambalaya Street	0.91
36	1418 A Jambalaya Street	0.91
37	1418 B Jambalaya Street	0.91
38	1419 Jambalaya Street	0.91
39	1416 Jambalaya Street	0.88

		3/12/2013
No.	Chunch Addungs	VOC Concentration
NO.	Street Address	(ppm)
40	1414 Jambalaya Street	0.81
41	1414 A Jambalaya Street	0.88
42	1414 B Jambalaya Street	0.89
43	1412 Jambalaya Street	0.91
44	1412 A Jambalaya Street	1.01
45	1410 Jambalaya Street	0.92
46	1410 A Jambalaya Street	0.92
47	1410 B Jambalaya Street	1.01
48	1411 Jambalaya Street	1.01
49	1409 Jambalaya Street	0.93
50	1408 Jambalaya Street	0.99
51	1408 A Jambalaya Street	0.93
52	1406 Jambalaya Street	0.93
53	1406 A Jambalaya Street	0.93
54	1406 B Jambalaya Street	0.93
55	1407 Jambalaya Street	0.93
56	1405 Jambalaya Street	0.93
57	1403 Jambalaya Street	0.99
58	1402 Jambalaya Street	0.97
59	1400 Jambalaya Street	0.99
60	117 Gumbo Street	0.96
61	1402 Sauce Piquante Lane	0.80
62	1401 Sauce Piquante Lane	0.97
63	1403 Sauce Piquante Lane	0.92
64	1408 Sauce Piquante Lane	0.79
65	1409 Sauce Piquante Lane	0.80
66	1410 Sauce Piquante Lane	0.80
67	1411 Sauce Piquante Lane	0.83
68	1413 Sauce Piquante Lane	0.82
69	1414 Sauce Piquante Lane	0.79
70	1417 Sauce Piquante Lane	0.91
71	1418 Sauce Piquante Lane	0.81
72	1419 Sauce Piquante Lane	0.89
73	The Jeansonne's	0.93
74	Yellow house between 1418/1426	0.81
/4	Sauce Piquante Lane	0.81
75	Blue and White Trailer on Sauce	0.96
/ 3	Piquante Lane	0.90
76	1425 Sauce Piquante Lane	1.00
77	1426 Sauce Piquante Lane	0.84

		3/12/2013
		VOC Concentration
No.	Street Address	(ppm)
78	1428 Sauce Piquante Lane	0.79
79	1430 Sauce Piquante Lane	0.81
80	1433 Sauce Piquante Lane	0.89
81	1434 Sauce Piquante Lane	0.76
82	1434 B Sauce Piquante Lane	0.76
83	1436 Sauce Piquante Lane	0.71
84	1438 Sauce Piquante Lane	0.72
85	1439 Sauce Piquante Lane	1.02
	1441 Sauce Piquante Lane (Camper	
86	across 1438/1442 Sauce Piquante	0.91
	Lane)	
87	1442 Sauce Piquante Lane	0.76
88	1443 Sauce Piquante Lane	0.83
89	1444 Sauce Piquante Lane	0.81
-00	1445 Sauce Piquante Lane (Red &	0.04
90	White Trailer)	0.81
91	1446 Sauce Piquante Lane	0.76
92	1447 Sauce Piquante Lane	0.98
93	1449 Sauce Piquante Lane	0.77
94	1453 Sauce Piquante Lane	0.84
95	1454 Sauce Piquante Lane	0.73
96	1455 Sauce Piquante Lane	0.79
97	1457 Sauce Piquante Lane	0.75
98	1458 Sauce Piquante Lane	0.74
99	1459 Sauce Piquante Lane	0.75
100	1460 Sauce Piquante Lane	0.77
101	1461 Sauce Piquante Lane	0.76
102	1463 Sauce Piquante Lane	0.74
103	1465 Sauce Piquante Lane	0.75
104	1467 Sauce Piquante Lane	0.85
105	1468 Sauce Piquante Lane	0.74
106	1469 Sauce Piquante Lane	0.79
107	1471 Sauce Piquante Lane	0.75
108	1472 Sauce Piquante Lane	0.73
109	1473 Sauce Piquante Lane	0.84
110	1474 Sauce Piquante Lane	0.75
111	1477 Sauce Piquante Lane	0.77
112	1478 Sauce Piquante Lane	0.68
113	1479 Sauce Piquante Lane	0.78
114	100 Crawfish Stew Street	0.73

		3/12/2013
No.	Street Address	VOC Concentration
NO.	Street Address	(ppm)
115	101 Crawfish Stew Street	0.86
	103 Crawfish Stew Street (Trailer	
116	between 101/107 Crawfish Stew	0.83
	Street)	
117	107 Crawfish Stew Street	0.87
118	108 Crawfish Stew Street	0.68
119	111 Crawfish Stew Street	0.89
120	113 Crawfish Stew Street	0.86
121	114 Crawfish Stew Street	0.72
122	Trailer across from 114 Crawfish	0.77
122	Stew Street	0.77
123	116 Crawfish Stew Street	0.81
124	127 Crawfish Stew Street	0.81
125	135 Crawfish Stew Street	0.74
126	Wooden house between 135/141	0.79
120	Crawfish Stew Street	0.79
127	141 Crawfish Stew Street	0.77
128	145 Crawfish Stew Street	0.78
129	147 Crawfish Stew Street	0.77
130	149 Crawfish Stew Street	0.78
131	153 Crawfish Stew Street	0.76
132	156 Crawfish Stew Street	0.70
133	159 Crawfish Stew Street	0.72
134	163 Crawfish Stew Street	0.65
135	165 Crawfish Stew Street	0.72
136	170 Crawfish Stew Street	0.78
137	174 Crawfish Stew Street	0.73
138	1400 Highway 70 South	0.97
139	1408 Highway 70 South	1.08
140	1412 Highway 70 South	1.11
141	1420 Highway 70 South	1.10
142	1424 Highway 70 South	1.1
143	1439 Highway 70 South	0.98
144	1440 Highway 70 South	1.03
145	1443 Highway 70 South	0.95
146	1447 Highway 70 South	0.96
147	1451 Highway 70 South	0.96
148	1455 Highway 70 South	1.03
149	1490 Highway 70 (Last house before	1.17
143	the bridge, going west)	1.1/

		3/12/2013
NI.a	Stungt Addungs	VOC Concentration
No.	Street Address	(ppm)
150	1501 Highway 70 South	1.07
151	1503 Highway 70 South	1.07
152	1506 Highway 70 South	0.83
153	111 Edmond Lane	1.06
154	113 Edmond Lane	1.06
155	Trailer on left side Edmond Lane	1.08
156	103 Bayou Corne Street	1.05
157	Trailer Bayou Corne Street	0.97
158	Camp Bayou Corne Street	Not Recorded
	MIN	0.65
	MAX	1.17
	AVG	0.86

#### Texas Brine - Belle Rose, Louisiana Hourly Air Monitoring Data

\*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

		South	-most Pipeli	ne Site		Middle-most Pipeline Site					North	-most Pipelii	ne Site			On	Drill Rig Bo	om		Relief Well					
			ST-3					ST-2					ST-1					OG 3A-1					RW-1		ŀ
		Non-					Non-					Non-					Non-								, ,
		Methane					Methane					Methane					Methane					Non-			, ,
		VOC					VOC					VOC					VOC					Methane			, ,
Date-Time *	CO (ppm)	(ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	(ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	(ppm)	H2S (ppm)	LEL (%)	O2 (%)	SO2 (ppm)	(ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)
03/12/2013 01:00:00 AM	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.1	<1.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9
03/12/2013 02:00:00 AM	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	21.0	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9
03/12/2013 03:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	1				ŀ
03/12/2013 04:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	1				ļ
03/12/2013 05:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	1				ŀ
03/12/2013 06:00:00 AM	<1.0	0.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	1				ļ
03/12/2013 07:00:00 AM	0.0	0.0	<1.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	1				ļ
03/12/2013 08:00:00 AM	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9		Battery M	alfunction. S	See Note.	ŀ
03/12/2013 09:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
03/12/2013 10:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.0	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.1
03/12/2013 11:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	21.3	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.3
03/12/2013 12:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	21.4	0.0	<1.0	<1.0	0.0	21.0	0.0	0.0	0.0	0.0	21.4
03/12/2013 01:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.3	0.0	0.0	0.0	0.0	21.4	0.0	<1.0	<1.0	0.0	21.3	0.0	0.0	0.0	0.0	21.5
03/12/2013 02:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.3	0.0	0.0	0.0	0.0	21.4	0.0	0.0	<1.0	0.0	21.3	0.0	0.0	0.0	0.0	21.6
03/12/2013 03:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.3	0.0	0.0	0.0	0.0	21.4	0.0	0.0	<1.0	0.0	21.3	<1.0	<1.0	0.0	0.0	21.6
03/12/2013 04:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.3	0.0	0.0	0.0	0.0	21.4	0.0	0.0	<1.0	0.0	21.3	<1.0	<1.0	<1.0	0.0	20.9
03/12/2013 05:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.3	0.0	0.0	0.0	0.0	21.4	0.0	<1.0	<1.0	0.0	21.3	<1.0	<1.0	0.0	0.0	20.9
03/12/2013 06:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	21.4	0.0	<1.0	0.0	0.0	21.3	<1.0	<1.0	0.0	0.0	20.9
03/12/2013 07:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.2	0.0	<1.0	0.0	0.0	21.4	0.0	<1.0	0.0	0.0	21.2	<1.0	<1.0	0.0	0.0	20.8
03/12/2013 08:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.1	0.0	<1.0	0.0	0.0	21.4	0.0	0.0	0.0	0.0	21.1	<1.0	<1.0	0.0	0.0	20.6
03/12/2013 09:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	1.2	0.0	0.0	21.3	0.0	0.0	0.0	0.0	21.0	<1.0	<1.0	0.0	0.0	20.4
03/12/2013 10:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	21.3	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.3
03/12/2013 11:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.3
03/13/2013 12:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.3

Notes:
Beginning at 2:54 AM on 03/12/2013, RTU-1, located at RW-1, stopped collecting data due to a battery malfunction. RTU-1 was replaced by RTU-3 at 09:36 on 03/12/2013, and normal data collection resumed.

\*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

		South	-most Pipeli	ne Site			Middle	-most Pipeli	ne Site			North	-most Pipeli	ne Site			On	Drill Rig Bo	om				Relief Well		
			ST-3			ST-2						ST-1			OG 3A-1							RW-1			
		Non-					Non-					Non-												1	
		Methane					Methane					Methane					Non-					Non-		,	1
		VOC					VOC					VOC					Methane					Methane		1 ,	
Date-Time *	CO (ppm)	(ppm)	H2S (ppm)	LEL (%)		CO (ppm)	(ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	(ppm)	H2S (ppm)	LEL (%)		SO2 (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)
03/12/2013 05:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9					
03/12/2013 06:00:00 AM	<1.0	0.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9					
03/12/2013 07:00:00 AM	0.0	0.0	<1.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9					
03/12/2013 08:00:00 AM	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9		Battery 1	nalfunction.	See note.	
03/12/2013 09:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
03/12/2013 10:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	21.0	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.1
03/12/2013 11:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	21.3	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.3
03/12/2013 12:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	21.4	0.0	<1.0	<1.0	0.0	21.0	0.0	0.0	0.0	0.0	21.4
03/12/2013 01:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.3	0.0	0.0	0.0	0.0	21.4	0.0	<1.0	<1.0	0.0	21.3	0.0	0.0	0.0	0.0	21.5
03/12/2013 02:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.3	0.0	0.0	0.0	0.0	21.4	0.0	0.0	<1.0	0.0	21.3	0.0	0.0	0.0	0.0	21.6
03/12/2013 03:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.3	0.0	0.0	0.0	0.0	21.4	0.0	0.0	<1.0	0.0	21.3	<1.0	<1.0	0.0	0.0	21.6
03/12/2013 04:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.3	0.0	0.0	0.0	0.0	21.4	0.0	0.0	<1.0	0.0	21.3	<1.0	<1.0	<1.0	0.0	20.9
03/12/2013 05:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.3	0.0	0.0	0.0	0.0	21.4	0.0	<1.0	<1.0	0.0	21.3	<1.0	<1.0	0.0	0.0	20.9
03/12/2013 06:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	21.4	0.0	<1.0	0.0	0.0	21.3	<1.0	<1.0	0.0	0.0	20.9
03/12/2013 07:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.2	0.0	<1.0	0.0	0.0	21.4	0.0	<1.0	0.0	0.0	21.2	<1.0	<1.0	0.0	0.0	20.8
03/12/2013 08:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	21.1	0.0	<1.0	0.0	0.0	21.4	0.0	0.0	0.0	0.0	21.1	<1.0	<1.0	0.0	0.0	20.6
03/12/2013 09:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	1.2	0.0	0.0	21.3	0.0	0.0	0.0	0.0	21.0	<1.0	<1.0	0.0	0.0	20.4
03/12/2013 10:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	21.3	0.0	0.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.3
03/12/2013 11:00:00 PM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.3
03/13/2013 12:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.3
03/13/2013 01:00:00 AM	0.0	<1.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	21.2	0.0	<1.0	<1.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.3
03/13/2013 02:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	1.4	<1.0	0.0	0.0	20.2
03/13/2013 03:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	0.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.2
03/13/2013 04:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	3.1	0.0	0.0	21.1	0.0	<1.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.1
03/13/2013 05:00:00 AM	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	3.1	0.0	0.0	21.1	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	0.0	0.0	20.1

Note: Beginning at 2:54 AM on 03/12/2013, RTU-1, located at RW-1, stopped collecting data due to a battery malfunction. RTU-1 was replaced by RTU-3 at 09:36 on 03/12/2013, and normal data collection resumed.

## **RESPEC Consulting & Services**

# Texas Brine, L.L.C. Assumption Parish, Louisiana Daily Field Report

Report By: David	l Gnage				Dat	e: 3-12-13
Company: RESP	PEC		V	Work O	rder #:	()
Personnel		Company			Job Tit	le
Time Onsite:	Start Tim	e <u>: NA</u> E	nd Time <u>:</u>	NA	_	
<b>Equipment Onsite</b> :						
Daily Activity:	No Field	Work Conducted. RE	SPEC not o	on-site.		
<b>Proposed Schedule:</b>	No onsite	work scheduled at thi	s time.			
					Initials:	DJG

#### **ME&A Daily Action Summary**

March 12, 2013

#### **Subsidence Survey:**

No Work Done

#### Sinkhole Perimeter/Hydrographic Survey:

- Arrived @ 7:30 am
- Survey swamp area outside of sinkhole to determine extent of subsidence area.
- Departed @ 3:00 pm

#### **Support Sinkhole Cleanup**

No Work Done

#### Misc. Survey Work

No Work Done

### Michael Pisani & Associates

#### Texas Brine, L.L.C. Assumption Parish, Louisiana Daily Field Report

Report By:	Patrick Ri	tchie				_	Date		3
Company:	MP&A					`	Work Order #	# 80-05	_
Health and Sa	afety Meetii	ng	YES		NO				
Weather:	52 F Most	ly sunny, calı	m					_	
	Personnel			Company			Job Title		
Charles Traha			MP&A	Company		Geologist	JOU THIC		_
Walker Hill D		W	IVII CO I			Geologist			
Patrick Ritchi		··	MP&A			Environme	ntal Scientist	t	
			-						_
						1			
									_
Site Activ	ities:	Start Time	6:55	End Time	17:10				
			-	_		•			
<b>Equipment C</b>	On-site:	Gardner De	nver mud	rotary rig					
		Vac truck							
		Skid steer							
		Mud cleani	ng system						
		Airboat							
<b>Daily Activity</b>	<u>y:</u>								
Reamed borel	hole to 340	' bgs at MRA	A-03RD.						
Set well at MI	RAA-03RI	), well screen	ed 320-33	0' bgs.					
Placed 20/40	sand and th	nen layer of v	olclay in w	vell					
Conduct in-si	tu monitori	ng surface w	ater transe	ect and industri	al water we	ell locations			
Measure wate	er level for	the industrial	water well	ls					
Estimated tim	ne of compl	etion:							
On-going									
Proposed sch	<u> 1edule:</u>								
Conduct in-si	tu monitori	ng surface w	ater transe	ect and industri	al water we	ell locations 3	3/15/2013		
Measure wate	er level for	the industrial	water well	ls 3/15/2013					
Measure press	sure and wa	ater level at T	BC Geopr	obe locations 3	3/18/2013				
Tag volclay la	ayer and the	en grout annu	lus						
		-							
Estimated tim	ne of compl	etion:							
On-going									
							Initials:	PMR	